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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 19, 2013

TO: Internal File

THRU: James Owen, Team Lead JCO

FROM: Priscilla Burton, CPSSc PWB 6/19/2013

RE: Waste Rock disposal Site Subsoil Pile As Built (from West Lease Portal construction), Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, Task ID #4368

SUMMARY:

The waste rock as-built (West Lease Portal development) information received on June 5, 2013, is not recommended for approval for the following reasons.

R645-301-121.100 and -121.200, The narrative in Chapter 2 pp. 2-11 through pp.2-22 is a mixture of conjecture and documented soil volumes. To avoid confusion, much of this narrative in chapter 2 section should be rewritten to be current and much could be replaced with a quick reference table as-built volumes of subsoil and topsoil stockpiled at all locations in the permit area. At a minimum, page 2-17 requires revision with updated topsoil volumes taken to the waste rock site from the mine site water tank construction.

R645-301-231.400, The sedimentation pond stockpile volume and an estimate of the topsoil volume stockpiled on Lift #4 should be included in the accounting of topsoil volumes on WRDS page 3-4. Subsoil and topsoil pile volumes for all stockpile locations might be displayed in a single table for quick reference.

R645-301-233.300, The laboratory analyses of a sample received by the laboratory June 15, 2010 do not represent the bulk of the material stored in the subsoil stockpile as the analysis predates the sampling commitment in the West Lease Portal Development Task 3780 cover letter dated March 21, 2011. The Division requests that the 11,364 yd3 subsoil stockpile at the waste rock site is cored in three locations. The three composites of the subsoil will represent the 0 - 7ft. ; 7- 15 ft.; and 15 - 20 ft. depth from the pile surface. Three composite samples should be sent for analysis of parameters described in Tables 3 and & of the Utah Overburden Guidelines. Once available, the location of the laboratory analysis should be referenced in Chap 2 as demonstrating suitability of the 11,364 yd3 subsoil stored at the stockpile site.

TECHNICAL ANALYSIS:

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Several small topsoil stockpiles have been segregated and protected (Vol. 1 Section 2.3.1.1 and 2.3.1.4 and Vol. 3 Sec. 3.1.6). They are as follows:

Waste rock site stockpiles (Vol 3, Map 4):

mine site water tower stockpile 1A at waste rock site	8 yd^3
mine site subsoil stockpile	11,364 yd^3
waste rock site topsoil 1B mine	457 yd^3
waste rock topsoil pile #2	161.4 yd^3
waste rock topsoil pile #3	138 yd^3
waste rock fenced sediment pond topsoil pile	(unspecified volume)

Mine site stockpiles

sediment pond	1,200 yd^3
substation no. 1	224 yd^3
substation no. 2	118 yd^3
overflow pond	1,488 yd^3
Link Canyon	38yd^3

Three new portals accessing the West Lease and were approved with Task #3548 in 2010. The construction of concrete access tunnels to lessen the grade of the entry to Portal #1 (West Lease Beltline portal) and Portal #2 (West Lease Main Haulage portal) was conditionally approved with Task 3780. A commitment stated in the West Lease portal construction application cover letter, dated March 21, 2011, was to provide suitability analysis for excess soil which supports placement in either the subsoil stockpile or the waste rock pile at the waste rock site. Not only was this as-built information was required as a condition of approval of the West Lease portal construction (reviewed as Tasks 3548, 3739, and 3780), but also testing of the fill as it was excavated was anticipated and described in Section 2.2.4 and Section 2.3.3.2 . The cover letter for the West Lease portal tunnel development, approved Task 3780, was dated March 21,

2011. The laboratory analyses received on June 5, 2013 do not represent the bulk of the material stored in the subsoil stockpile as they predate this commitment. The Division requests that the 11,364 yd3 subsoil stockpile at the waste rock site is cored in three locations. Three composite samples should be sent for analysis of the subsoil representing the 0 - 7ft. ; 7- 15 ft.; and 15 - 20 ft. depth from the pile surface.

The MRP identifies 2,160 yd^3 of subsoil stored in the substation bin wall and 5,300 yd^3 of road base and 11,364 yd^3 subsoil stored at the waste rock site that is available for use as subsoil at the mine site (Section 2.3.1.4.). That is a total of 18,824 yd^3 of suitable subsoil available for final reclamation of the 17.4 acre East Spring Canyon facilities pad site, as listed in MRP, Sec. 116. (This amounts to approximately 8 inches of subsoil cover.) Volume 1, Chapter 2, page 2-21 has been updated with this information.

At the East Spring Canyon mine site, topsoil is stored at the substation stockpile (27yd^3), and at the sediment pond (1,200 yd^3 , Section 2.3.1.4). The overflow pond construction in 2009 was estimated to generate an additional 1,850 yd^3 (Sec. 2.3.1.1, p. 18). (As builts for the overflow pond stockpile are under review as Task #4366.) Substitute topsoil is also located in restored (seeded) slopes at the mine site (pp. 2-10 and 2-23). More specifically, the interim seeded slopes above the parking lot and portals will be used as substitute topsoil (personal communication with Mike Davis, November 24, 2009.)

The waste rock as-built amendment states that there are five topsoil stockpiles at the Waste Rock site. They are Topsoil Pile 1A, 1B, new topsoil stockpiles 2 & 3, and the sediment pond topsoil stockpile. The sedimentation pond stockpile volume and an estimate of the topsoil volume stockpiled on Lift #4 should be included in the accounting of topsoil volumes on WRDS page 3-4. Subsoil and topsoil pile volumes for all stockpile locations might be displayed in a single table for quick reference.

Final reclamation grading of the mine site is described in Section 5.4.2.2 and Appendix 2-4. Cut/Fill estimates are presented in Appendix 2-5. Approximately 74,000 yd^3 will be moved.

Findings:

R645-301-231.400, The sedimentation pond stockpile volume and an estimate of the topsoil volume stockpiled on Lift #4 should be included in the accounting of topsoil volumes on WRDS page 3-4.

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RECOMMENDATIONS:

Several items are to be resolved prior to resubmittal and approval.

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